Department of Ophthalmology and Visual Sciences

Instruction begins in the first year with examination of the eye and a lecture on various aspects of ocular disease. During the second year, students will receive a refresher lecture and lab on direct ophthalmoscopy as well as a lecture on ophthalmic manifestations of systemic disease and primary ocular disease. During the third year, students are given the opportunity during the surgery clerkship to spend four weeks on the ophthalmology services. In addition, during the third year there are lectures given to students during the Internal Medicine rotations. In the fourth year, a four-week intensive clinical rotation is tailored to students interested in pursuing ophthalmology as a career. Also, research electives are available under the guidance of numerous ophthalmology faculty members for fourth-year students.

Website: http://ophthalmology.wustl.edu

Degrees & Requirements

While the Department of Ophthalmology and Visual Sciences does not offer its own degree, some of the department's courses are open to students in the MD and MSTP (MD/PhD) programs. Further information about the MD and MSTP degrees can be found in the Degrees & Programs Offered (http://bulletin.wustl.edu/medicine/degrees) section of this Bulletin.

Research

M50 Ophth 900

Usha P. Andley, PhD
1114-C McMillan
Phone: 314-362-7167
Molecular basis of cataract; the function of molecular chaperones in cataract; proteomics, imaging and biochemical studies on cell culture and mouse models for crystallin gene mutations linked with cataract; testing drugs to inhibit cataract.

Rajendra S. Apte, MD, PhD
Email: apte@vision.wustl.edu
Innate immunity and immune effector mechanisms in the retina, oxidative stress and cell death, models of developmental angiogenesis and neovascularization, inflammation and photoreceptor survival, macular degeneration.

Steven Bassnett, PhD
1114 McMillan
Phone: 314-362-1604
Eye development, stochastic models of lens growth, stem cell biology, age-related cataract, UV-induced somatic mutation, ocular manifestations of Marfan syndrome, cell death suppression on the optic axis, cell biology of transparent tissues.

Anjali Bhorade, MD
Phone: 314-362-5343
Evaluating the effect of glaucoma on visual function in older adults in the home. Understanding the relationship between vision and driving in older adults with glaucoma.

Shiming Chen, PhD
618 McMillan
Phone: 314-747-4350
The molecular mechanisms regulating photoreceptor gene expression and the implications in understanding photoreceptor development and disease. We are focusing on three transcription factors, CRX, NRL and NR2E3, linked to photoreceptor degenerative diseases. Molecular genetics and biochemical approaches are used to identify the regulatory pathways associated with each factor. Mouse models are used to understand why mutations in these factors cause disease and develop therapeutic strategies, including AAV-gene therapy.

Steven M. Couch, MD
Email: couch@vision.wustl.edu
Orbital inflammatory diseases, surgical techniques and novel treatments of periorcular/orbital disease.

Susan M. Culican, MD, PhD
1104 McMillan
Phone: 314-362-9278
Clinical: development of a low-cost, simple visual function task for screening for macular disorders in the primary care setting. Education: examination of the utility of assessment tools for evaluating resident clinical progression during residency training. Development of new metrics to gauge resident progress.

Philip L. Custer, MD
Email: custer@vision.wustl.edu

Thomas A. Ferguson, PhD
1207 McMillan
Phone: 314-362-3745
Molecular basis of immune tolerance and how apoptotic cells tolerate the immune response. The role of immune privilege in the pathogenesis of eye diseases such as age-related macular degeneration (AMD). The role of basal autophagy in the cells of the eye by using the cre-loxP system to delete essential autophagy genes from specific cell types in the eye.

Mae Gordon, PhD
1125 Old Shriners
Phone: 314-362-3716
Ocular hypertension, glaucoma, keratoconus, adenoviral conjunctivitis, randomized clinical trial methodology, patient-reported outcome measures and measurement reliability.
George J. Harocopos, MD
Email: harocopos@vision.wustl.edu
Age-related cataract, ophthalmic pathology.

Didier Hodzic, PhD
620 McMillan
Phone: 314-362-7037
Email: hodzicd@vision.wustl.edu
Cell biology of retinal development and homeostasis in mice, cone and rods cytoarchitecture.

Andrew Huang, MD, MPH
106 McMillan
Phone: 314-362-0403
Ocular surface stem cell biology, molecular therapy for corneal dystrophies and corneal neovascularization, oxidative stress of corneal endothelium, clinical research on dry eye and ocular surface disease.

Humeyra Karacal, MD
Email: karacal@vision.wustl.edu
Treatment of uveitis, prevention of cataracts with anti-oxidants, anti-oxidants in age-related macular degeneration, retinal imaging and analysis using data mining techniques, designing OR equipment to facilitate ophthalmic surgery.

Michael A. Kass, MD
Email: kass@vision.wustl.edu
Principal Investigator of the Ocular Hypertension Treatment Study (OHTS). Diagnosis, treatment and public health aspects of glaucoma.

Vladimir Kefalov, PhD
625 McMillan
Phone: 314-362-4376
Photoreceptor Neurobiology and Retinal Degeneration. We are a sensory neurobiology lab interested in the function of mammalian rod and cone photoreceptors. In addition, we are interested in the mechanisms of neurodegeneration in the retina and are working on developing pharmacological and gene-therapy tools for preventing photoreceptor cell death.

Daniel Kerschensteiner, MD
Email: kerschensteiner@vision.wustl.edu
To understand the principles that guide the assembly of neural circuits and to decipher the way they process information. We would like to understand the principles that guide the assembly of neural circuits in the retina and to decipher the way they process information and hope to identify features of the retinal circuit architecture that perform particular computations and characterize how they arise during development. We then probe underlying mechanisms of circuit assembly and function through genetically targeted manipulations of specific cells in the retina.

John T. Lind, MD, MS
Email: lindj@vision.wustl.edu
Glaucoma education, resident education, pharmacologic and surgical treatment of glaucoma, ophthalmic microbiology.

Gregg T. Lueder, MD
Email: lueder@vision.wustl.edu
Retinoblastoma, eye misalignment (strabismus), retinopathy of prematurity, abnormal tearing, nasolacrimal disorders, cataracts, glaucoma.

Peter Lukasiewicz, PhD
1003C McMillan
Phone: 314-362-4284
Neurotransmitters, synapses, retinal function in health and disease, retinal information processing.

Todd P. Margolis, MD, PhD
Email: margolist@vision.wustl.edu
1. Cellular and molecular mechanisms that regulate herpes simplex infection neurons.
2. Inexpensive telemedicine for reducing blindness in underserved populations.

John R. Pruitt Jr., MD, PhD
1153K East Building
Phone: 314-747-6769
Visual Systems and Cognitive Neuroscience Studies of Autism. Two active areas of research in my lab include: 1) behavioral and imaging studies of visual attention to and processing of eyes and faces in autistic and non-autistic subjects, and 2) developmental studies of large-scale brain networks in autistic and non-autistic subjects using functional connectivity magnetic resonance imaging (fcMRI). Example research rotation projects might include: pilot visual psychophysical studies of intermediate visual processes supporting face perception or — for trainees with computational and/or imaging skills and interests — graph theory-based analyses of visual system subnetwork structure across various groups in fcMRI data we have acquired from ongoing projects.

Kumar Rao, MD
Email: rao@vision.wustl.edu
Surgical and medical therapies for disorders of retina and choroid.

Nathan Ravi, MD, PhD, MS, FAAO
Email: ravi@vision.wustl.edu
Directed toward understanding the pathophysiology of presbyopia and developing medical or surgical treatments for this condition.

Alan Shiels, PhD
1128 McMillan
Phone: 314-362-1637
Email: shiels@vision.wustl.edu
Molecular genetic mechanisms underlying cataract, glaucoma and associated eye disorders: (1) genome-wide linkage analysis and targeted (exome, amplicon) sequencing for discovery of causative or susceptibility genes, and (2) genotype-phenotype and functional expression studies of naturally occurring and
gene-targeted mouse models to characterize pathogenic mechanisms.

Carla J. Siegfried, MD
Email: siegfried@vision.wustl.edu
My research is focused on ocular oxygen metabolism and the development of open-angle glaucoma. We are studying how the oxygen gradient in the eye is altered in disease states as well as noninvasive methods of measuring corneal oxygen consumption.

Florentina Soto, PhD
Email: sotolucasf@vision.wustl.edu
Studies in my laboratory aim to identify the molecular basis of dendrites and axons lamination and synapse formation during development and in the adult retina. In addition, we investigate how these molecules could be involved in the development of retinal pathologies including retinal degeneration.

Larry Tychsen, MD
2589 Eye Clinic, St. Louis Children's Hospital
Phone: 314-454-6026
Principal investigator on NIH-funded studies of visual brain maldevelopment and repair in infant primates, as well as clinical studies of visuomotor abnormalities in cerebral palsy and pediatric refractive surgery.

Gregory P. Van Stavern, MD
Email: vanstaverng@vision.wustl.edu
Neuroimaging of the visual pathways, Idiopathic Intracranial Hypertension, evidence-based medicine and clinical decision making; using the visual system as a model to study neurologic disorders. A further description of research labs can be found on the Vision Research Community website (http://vrcore.wustl.edu/residentstudentresearchopportunities/RSROHome).

Faculty

Pediatric Ophthalmology Director
R. Lawrence Tychsen

Adult Ophthalmology Clinical Director
P. Kumar Rao

Ophthalmology Research Director
Peter Lukasiewicz

Ophthalmology Education Director
Susan Culican

Ophthalmology Director of Translational Research
Rajendra Apte

Visit our website for more information about our faculty (http://ophthalmology.wustl.edu/Faculty) and their appointments.
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Washington Univ in St. Louis 1987
MA Washington Univ in St. Louis 1987
BA Earlham College 1982

Gregg Jonathan Berdy, MD
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
BA Duke University 1979
MD Saint Louis University 1983

Paul M Bernier, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD University of Missouri 1987
BS Indiana State University 1983

Anjali Maruti Bhorade, MD
Associate Professor of Ophthalmology and Visual Sciences (primary appointment)
Associate Professor of Occupational Therapy
MD University of Chicago 1999

Frank Joseph Bier, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD University of MO St Louis 1984
BS University of Missouri 1979

Ronald C Bilchik, MD
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Washington Univ in St. Louis 1967
BS University of Toledo 1963

Mark Gerald Birkmann, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD University of Missouri 1992
BA University of Missouri 1988

Andrew N Blatt, MD, MA
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Washington Univ in St. Louis 1992
MA Washington Univ in St. Louis 1991
BA Duke University 1987

Kevin Jay Blinder, MD
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD University of MO Kansas City 1985

James C Bobrow, MD
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Johns Hopkins University Medic 1970
BA Yale University 1966

George M Bohigian, MD
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Saint Louis University 1965
BA Washington Univ in St. Louis 1961

Isaac Boniuk, MD
Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Dalhousie University 1962
BS Dalhousie University 1958

Bernita Born-Wolf, OD, BN
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD University of MO St Louis 1987
BN Saint Louis University 1978

Paul J Botelho, MD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
MD Boston University 1992
BA Holy Cross College 1988

Rebekah Arletta Braslow, MD
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)
BS Stanford University 1981
MD Yale University 1987

Sean Michael Breit, MD
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Ohio State University 2002

Larry G Brokering, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD Illinois College of Optometry 1972

Marc Richard Brown, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BA University of Missouri 1974
OD School Not Listed 1980

Dean B Burgess, MD
Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)
BA Occidental College 1963
MD University of California 1967

C

Carmen F Castellano, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS Illinois College of Optometry 1980
OD Illinois College of Optometry 1982
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD School Not Listed 1964

Alicia Beatriz De Maria Leiva, PHD
Instructor in Ophthalmology and Visual Sciences (primary appointment)
PHD Universidad de la Republica 2002

James Allen Declue, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS Butler University 1967
OD Illinois College of Optometry 1949

John James Deguire, MD
Instructor in Ophthalmology and Visual Sciences (primary appointment)
BA Washington Univ in St. Louis 1983
MD University of Illinois 1988

Paul E Diehl, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD Illinois College of Optometry 1959

John Robert Eigenbrodt, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD University of Missouri 1988
BS Southern Ill Univ Edwardsville 1985

Nicholas Earl Engelbrecht
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)

Lawrence W Ernst, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD University of Missouri 1990

Raymond F Fada Jr, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD University of Missouri 1989
BS University of Michigan 1984

Adam Ross Fedyk
Instructor in Clinical of Ophthalmology & Visual Sciences (primary appointment)

Robert M Feibel, MD
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
BA Johns Hopkins University 1965
MD Harvard University 1969
Thomas A Ferguson, MS, PHD  
Professor of Ophthalmology and Visual Sciences (primary appointment)  
Associate Professor of Pathology and Immunology  
BA Kent St University 1974  
MS Kent St University 1976  
PHD University of Cincinnati 1982

Kurt W Finklang, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD State University of New York 1981  
BS University of Missouri 1977

Frank Donald Fontana, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD Illinois College of Optometry 1950

Bruce S Frank, MD  
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
BS Mass Inst of Technology (MIT) 1972  
MD Washington Univ in St. Louis 1976

Carrie S Gaines, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD University of Missouri 1988  
BS University of Missouri 1984

Lawrence A Gans, MD  
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
BA Columbia University 1972  
MD Case Western Reserve Univ 1977

Stephen M Garnett, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD Indiana University Bloomington 1980  
BS Indiana University Bloomington 1978

N. Rex Ghormley, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD School Not Listed 1964

James M Gordon, MD  
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
MD University of Minnesota 1966  
BA University of Minnesota 1962

Mae Etsuko Gordon, MS, PHD  
Professor of Ophthalmology and Visual Sciences (primary appointment)  
Professor of Biostatistics  
MS Univ of Wisconsin Madison 1970  
BA Portland St University 1967  
PHD Univ of Wisconsin Madison 1979

Mark Gilbert Grand, MD  
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
MD Yale University 1968  
BS Tufts University 1964

Kenneth O Green, MD  
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
BS Saint Louis University 1956  
MD University of Missouri 1960

Kevin William Greuloch, MD  
Instructor in Ophthalmology and Visual Sciences (primary appointment)  
MD University of Michigan 1999  
BS University of Notre Dame 1995

Steven J Grondalski, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
BA Saint Louis University 1983  
OD Penn College of Optometry 1987

George J Harocopos, MD  
Associate Professor of Ophthalmology and Visual Sciences (primary appointment)  
Assistant Professor of Pathology and Immunology  
MD University of Virginia 2000  
BA Harvard University 1995

Alexander D Harris, MA, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
BA University of Evansville 1969  
MA Washington Univ in St. Louis 1972  
OD University of Missouri 1986

Charles R Harris, UNKNOWN  
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)  
BS University of Missouri 1970  
UNKNOWN University of Missouri 1971

Jack Hartstein, MD  
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
MD University of Cincinnati 1955  
BA University of Missouri 1953

William L Herbold, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD School Not Listed 1967
Didier Hodzic, PHD  
Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)  
Assistant Professor of Cell Biology and Physiology  
BS University of Liege 1991  
PHD University of Liege 1998

James R Hoekel, OD  
Instructor in Ophthalmology and Visual Sciences (primary appointment)  
BS University of MO Columbia 1990  
OD University of MO St Louis 1994

Nancy Melberg Holekamp, MD  
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
BA Wellesley College 1985  
MD Johns Hopkins University 1989

Augustine Richard Hong, MD  
Assistant Professor in Ophthalmology and Visual Sciences (primary appointment)  
BA University of Illinois 2004  
MD University of Illinois Chicago 2009

Jing-Wei Huang, MD  
Professor of Ophthalmology and Visual Sciences (primary appointment)  
MD National Taiwan University 1981

Douglas Lee Huff, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD So Cal College of Optometry 1981  
BS School Not Listed 1980

Michael J Isserman, MD  
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
BA Harvard University 1971  
MD Washington Univ in St. Louis 1975

Jeffrey H Jacob, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
BA University of Missouri 1975  
OD So Cal College of Optometry 1980  
BS So Cal College of Optometry 1978

Sharon Leslie Jick  
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)  

Daniel Paul Joseph, MD, PHD  
Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
BS Cornell University 1981  
MD Wayne State University 1992  
PHD University of CA Berkeley 1988

Krishna Priya Kalyam, MD  
Instructor in Ophthalmology and Visual Sciences (primary appointment)  
BS Rutgers University 2008  
MD Robert Wood Johnson Medical Sc 2012

Stephen A Kamenetzky, MD1, MD  
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
MD1 School Not Listed 1970  
BA Washington Univ in St. Louis 1967  
MD Washington Univ in St. Louis 1970

Humeyra Karacal, MD  
Assoc Professor of Ophthalmology and Visual Sciences (primary appointment)  
MD Hacettepe University 1994

Michael A Kass, MS, MD  
Bernard Becker Professor of Ophthalmology and Visual Sciences (primary appointment)  
Senior Associate Dean for Human Research Protection  
BS Northwestern University 1963  
MS Northwestern University Med 1966  
MD Northwestern University 1966

Jack Kayes, MD  
Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)  
MD Washington Univ in St. Louis 1957  
BA Yale University 1953

Vladimir Jivkov Kefalov, PHD  
Professor of Ophthalmology and Visual Sciences (primary appointment)  
Professor of Neuroscience  
PHD Boston University 1999

Deborah Lynn Kerber, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD University of Missouri 1992  
BS Southeast Missouri St Univers 1986

Daniel Kerschensteiner, PHD  
Associate Professor of Ophthalmology and Visual Sciences (primary appointment)  
Associate Professor of Biomedical Engineering (Courtesy)  
Associate Professor of Neuroscience  
PHD Georg August University 2004

Sangeeta Khanna
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

William F Kiefer Jr, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS Illinois College of Optometry 1973
OD Illinois College of Optometry 1975
BA Princeton University 1967

Mark Alan Kleindorfer, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS Indiana University Bloomington 1977
OD Indiana University Bloomington 1979

Vivian Marie Kloke, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS Mckendree College 1986
OD University of Missouri 1990

Harry L Knopf, MD
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Harvard University 1967
BA Harvard University 1963

Ronald Joseph Knox, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD School Not Listed 1956

Michael S Korenfeld, MD
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Washington Univ in St. Louis 1986
BS University of Arizona 1981

Thomas Errol Kraemer, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS Indiana University Bloomington 1970
BA Millikin University 1968
OD Indiana University Bloomington 1972

L

Michael J Lachtrup, OD
Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)
BA Webster University 1980
OD University of MO St Louis 1989

Robert Louis Lamberg, MD
Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Washington Univ in St. Louis 1976
BS University of MO St Louis 1972

Paul Arthur Lapoint, OD, AA
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS School Not Listed 1963
OD School Not Listed 1963
AA Harris Stowe St College 1959

Steven F Lee, MD
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)
MD University of Maryland 1987
BS University of Maryland 1983

Scott W Lewis, OD, BS1
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS University of Illinois 1968
OD So Cal College of Optometry 1977
BS1 So Cal College of Optometry 1975

James Walter Lieber, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS Wayne State University 1976
OD Illinois College of Optometry 1981

John T Lind, MS, MD
Associate Professor of Ophthalmology and Visual Sciences (primary appointment)
MS Purdue University 2000
BS Indiana University Indianopoli 1999
MD Indiana University Indianopoli 2004

Anthony J Lubniewski, MD
Professor of Ophthalmology and Visual Sciences (primary appointment)
MD University of Florida 1985
BS University of Florida 1980

Gregg T Lueder, MD
Professor of Ophthalmology and Visual Sciences (primary appointment)
Professor of Pediatrics
BS Iowa State University 1981
MD University of Iowa 1985

Peter David Lukasiewicz, PHD
Professor of Ophthalmology and Visual Sciences (primary appointment)
Professor of Neuroscience
PHD University of Michigan 1984
BS Brown University 1977

M

Lisa Marie Mackey, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BA University of Kansas 1989
OD University of Missouri 1993

Ranjan P Malhotra, MD
Instructor in Clinical Ophthalmology and Visual Sciences
(primary appointment)
MD University of Missouri 1995
BA University of Missouri 1995

Todd P Margolis, PHD, MD
Alan A and Edith L Wolff Distinguished Professor (primary appointment)
Head of the Department of Ophthalmology and Visual Sciences
PHD University of CA San Francisco 1983
BS Stanford University 1977
MD University of CA San Francisco 1984

Mary Kay Migneco, BS1, OD
Assistant Professor of Ophthalmology and Visual Sciences
(primary appointment)
BS1 University of Missouri 1986
BS University of Missouri 1986
OD University of MO St Louis 1991

Barry David Milder, MD
Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Washington Univ in St. Louis 1973
BS Mass Inst of Technology (MIT) 1969

Duane L Mitzel, MD
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
BS University of California 2000
MD Washington Univ in St. Louis 1977

Eugene James Mobley, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD Northern Illinois University 1950

Robert L Mobley, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD Illinois College of Optometry 1958

Joshua L. Morgan, PHD
Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)
Assistant Professor of Neuroscience
BA Florida Southern College 2001
PHD Washington Univ in St. Louis 2007

Robert F Munsch, MD
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)
BA University of Colorado Boulder 1974
MD Saint Louis University 1977

Raymond I Myers, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS University of Notre Dame 1966
OD Indiana University Bloomington 1970

Randall Earl Nackle
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

Matthew Newman, MD
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Columbia University 1959
BA Vanderbilt University 1956

Paul F Nichols III, MD
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD University of California 1982
BA University of California 1978

Judith Mosinger Ogilvie, PHD, PHD1, MA
Adjunct Research Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)
PHD Harvard University 1983
PHD1 Harvard University 1983
BS Brown University 1976
MA Harvard University 1978

Jeffrey Robert Padousis, MD
Instructor in Clinical Ophthalmology and Visual Science (primary appointment)
MD Saint Louis University 2000
BA Vanderbilt University 1995

Anjali K Pathak, MD, MD1
Associate Professor of Ophthalmology and Visual Sciences (primary appointment)
MD West Virginia University 1997
BA West Virginia University 1993
BS West Virginia University 1993
MD1 West Virginia University 1997

Jay S Pepose, PHD, MD, MA
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
PHD University of California 1980
MD University of CA Los Angeles 1982
BA Brandeis University 1975
MA Brandeis University 1975

John Craig Perlmutter, MD
Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
Chau M Pham, BS1, MD  
Instructor in Ophthalmology and Visual Sciences (Pending Deans Approval)  
Instructor in Ophthalmology (primary appointment)  
BS1 Emory University 2000  
MD Case Western Reserve Univ 2013

Mujtaba A Qazi  
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

Rithwick Rajagopal, MD  
Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)  
MD New York University 2007

Mark S Rallo, OD  
Instructor in Ophthalmology and Visual Sciences (primary appointment)  
BS Saint Louis University 1986  
OD University of Missouri 1990

Prabakar Kumar Rao, MD  
Professor of Ophthalmology and Visual Sciences (primary appointment)  
BA University of CA San Diego 1991  
MD University of Southern Calif 1995

V. Nathan Ravi, PHD, MS, MD  
Professor of Ophthalmology and Visual Sciences (primary appointment)  
Professor of Energy, Environmental and Chemical Engineering  
PHD Virginia Tech 1980  
MS University of Bombay 1975  
BS University of Bombay 1972  
MD University of Miami 1988

Michael Dennis Rohde, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD University of Missouri 1987  
BS Valparaiso University 1983

Louis J Rosenbaum, MD  
Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
MD Washington Univ in St. Louis 1963  
BA University of Michigan 1959

Mark A Rothstein, MD  
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
BA Williams College 1986

Michael B Rumelt, MD  
Assistant Professor Emeritus of Clinical Ophthalmology and Visual Sciences (primary appointment)  
BS Lamar University 1962  
MD Washington Univ in St. Louis 1966

Scott Geoffrey Sagett  
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

Jonathan C Schell, MD  
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)  
MD Saint Louis University 2005  
BS Saint Louis University 2001

Frederick W Schwagger, OD, BS1  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
BS Illinois College of Optometry 1957  
OD Illinois College of Optometry 1957  
BS1 Washington Univ in St. Louis 2000

Christopher G Seep, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD University of MO St Louis 1984  
BA University of Missouri 1971

David Brian Seibel, OD  
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)  
OD University of Missouri 1987

Gaurav Kirit Shah, MD  
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)  
MD University of Illinois 1993

James Banks Shepherd III, MD  
Associate Professor of Ophthalmology and Visual Sciences (primary appointment)  
BA Amherst College 1992  
MD Columbia University 1997

Priya Saigal Shetty, MD  
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)  
MD University of Michigan 2007

Arsham Sheybani, MD  
Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)  
MD Washington Univ in St. Louis 2008

Steven M Shields, MD
Assistant Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
MD Washington Univ in St. Louis 1986
BS Washington Univ in St. Louis 1981

Alan Shiels, PhD
Professor of Ophthalmology and Visual Sciences (primary appointment)
Professor of Genetics
BS School Not Listed 1979
PHD University of London 1983

Howard Newton Short, MD
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)
BA Washington Univ in St. Louis 1974
MD Saint Louis University 1978

Carla J Siegfried, MD
Jacquelyn E and Allan E Kolker M.D. Distinguished Professor of Ophthalmology (primary appointment)
BA University of MO Kansas City 1989
MD University of MO Kansas City 1989

Charles D Signorelli, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS School Not Listed 1957
OD School Not Listed 1957

Bradley Thomas Smith, MD
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)
MD University of AL Birmingham 2002

Morton Edward Smith, MD
Professor Emeritus of Ophthalmology and Visual Sciences (primary appointment)
Associate Dean Emeritus for Post-Graduate Education
Lecturer in Ophthalmology and Visual Sciences
Lecturer in Pathology and Immunology
BS University of Maryland 1956
MD University of Maryland 1960

Claud Randall Snowden, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS Illinois College of Optometry 1972
OD Illinois College of Optometry 1974

Craig H Sorce, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD University of Missouri 1992
BA Southern Illinois University 1988

Florentina Soto Lucas, PHD
Assistant Professor of Ophthalmology and Visual Sciences (primary appointment)

PHD University of Alicante 1992

Mark H Spurrier, MD
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)
BA Kansas State University 1976
MD Washington Univ in St. Louis 1980

James F Strieter, OD, MBA
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
BS School Not Listed 1953
OD School Not Listed 1954
MBA Southern Ill Univ Edwardsville 1988

Brian Patrick Sumner, OD
Adjunct Instructor in Ophthalmology and Visual Sciences (primary appointment)
OD Illinois College of Optometry 1978

Kenneth V Swanson
Instructor in Clinical Ophthalmology and Visual Sciences (primary appointment)

T

Paul M Tesser, PHD, MD
Associate Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
PHD State Univ of NY Stonybrook 1990
MD State Univ of NY Stonybrook 1991
BS Mass Inst of Technology (MIT) 1981

Matthew A Thomas, MD
Professor of Clinical Ophthalmology and Visual Sciences (primary appointment)
BS Harvard University 1977
MD Harvard University 1991

Linda Mei-Lin Tsai, MD
Associate Professor of Ophthalmology and Visual Sciences (primary appointment)
MD Northwestern University 1995
BA Northwestern University 1990

Robert Lawrence Tychsen, MD
Professor of Ophthalmology and Visual Sciences (primary appointment)
John F Hardesty MD Distinguished Professor of Ophthalmology and Visual Sciences
Professor of Neuroscience
Professor of Ophthalmology and Visual Sciences in Pediatrics
MD Georgetown University 1979
BS Georgetown University 1975

V

Gregory Paul Van Stavern, MD
Professor of Ophthalmology and Visual Sciences (primary appointment)
Courses
Curriculum courses for Ophthalmology and Visual Sciences are listed below (p. 13).

First Year
Introduction to clinical ophthalmology begins in the first year with a lecture and practicum (peer exam) on taking an ocular history and performing an ocular exam. Emphasis is on ophthalmoscopy. Lectures and practicum session will be led by Dr. John Lind and Dr. Morton Smith.

Second Year
During the second year, students will receive a refresher lecture and lab on direct ophthalmoscopy as well as a lecture on ophthalmic manifestations of systemic disease and primary ocular diseases.

Third Year
Third-Year Clerkship Opportunities
In the third year, students are given the opportunity to spend four weeks of their surgery rotation on the ophthalmology service. The students work closely with the ophthalmology residents and review the differential diagnosis of the "red eye," how to interpret an ophthalmologic consult note, and how to handle ocular emergencies. During this rotation, there is again emphasis on the use of the ophthalmoscope. Additional clinical skills introduced to student rotators include the use of the slit lamp and indirect ophthalmoscopy. All third-year students must complete the "Case Studies in Ophthalmology for Medical Students" and attend the periodic "feedback/oral exam" session with Dr. John Lind and/or Dr. Morton Smith.

Third Year/Fourth Year
Ophthalmology Sub-Internship Rotation ("The Sub-Eye"). During the month of June prior to fourth year, students interested in pursuing a career in ophthalmology are encouraged to rotate on this intensive four-week rotation. Students will have personal indirect ophthalmoscopy lenses available for use on the rotation. Formal didactics and workshops will be used to teach students how to perform a detailed ophthalmic history and exam including mastery of advanced slit lamp techniques and indirect fundoscopy. There will be an intense schedule of both live and recorded lectures delivered by ophthalmology faculty.
members with post-lecture quizzes. Students will be expected to perform daily required reading. Retention and understanding of reading materials will be gauged by frequent quizzes. Students are strongly encouraged to present a case at the department’s Grand Rounds. By the end of the rotation, students will be expected to function at the level of a first-year ophthalmology resident.

**Curriculum Courses**

**M50 Ophth 655A Ophthalmology**
This course provides an introduction to clinical ophthalmology with emphasis on the history and physical examination specific for diseases of the eye. Common ocular diseases, ocular manifestations of systemic disease and ocular emergencies are reviewed.
Credit 3 units.

**M50 Ophth 740 Ophthalmology Clerkship**
In the third year, students are given the opportunity to spend four weeks of their surgery rotation on the ophthalmology service. At least two weeks are spent in the general ophthalmology clinic and the remaining two weeks are spent in sub-specialty clinics of neuro-ophthalmology, pediatric ophthalmology, glaucoma, cornea and external disease or retina in the outpatient eye clinic examining patients with ophthalmology residents.
The students work closely with the ophthalmology residents and review the differential diagnosis of the "red eye," how to interpret an ophthalmologic consult note, how to handle an ocular emergency in the emergency room (chemical burns, etc.) During this rotation, there is again emphasis on the use of the ophthalmoscope and a comprehensive text is used by the students during the rotation.
Credit 38.5 units.

**M50 Ophth 801 Ophthalmology**
This elective is for senior students who plan to apply for a residency in Ophthalmology. In accordance with any sub-internship, medical students will be expected to function at the level of a beginning first-year ophthalmology resident on this rotation. The students will rotate through the resident eye clinic and the subspecialty clinics of the full time faculty of the Washington University Medical School Department of Ophthalmology and Visual Sciences (e.g., neuro-ophthalmology service, cornea/external disease service, etc.). The first day of the rotation will consist of an orientation day in which students will receive extensive didactics and participate in workshops to learn the basics of a complete ophthalmic history and examination. Students may opt to check-out indirect ophthalmoscopy lenses that may be used for the month to facilitate the acquisition of fundoscopy skills. During the rotation, the student’s responsibilities range from observation (including observing surgery) to working at a resident level and completing full eye examinations. There will be a rigorous academic curriculum for the rotation including a weekly case presentation, bi-monthly wet lab sessions with a resident, weekly attendance at grand rounds, and a mix of medical student-oriented and resident-oriented conferences. On day one, students will receive a rotating call schedule for the entire month. A medical student is expected to be present at all times to assist the primary call ophthalmology resident during the rotation. By the end of the four-week rotation, the student is expected to be proficient in taking an ocular history and performing a complete eye exam including slit lamp biomicroscopy and indirect ophthalmoscopy.

**M50 Ophth 816 Away Rotation in Ophthalmology**
This four-week elective is for senior students from medical schools across the United States who are in good standing at their home institution and who are planning to apply for a residency in ophthalmology. The students will rotate through the resident eye clinic and the subspecialty clinics of the full time faculty of the Washington University Medical School Department of Ophthalmology and Visual Sciences (e.g., neuro-ophthalmology service, cornea/external disease service, etc.). In exchange for a refundable deposit, students may opt to check-out indirect ophthalmoscopy lenses that may be used for the month to facilitate the acquisition of fundoscopy skills. During the rotation the student’s responsibilities range from observation (including observing surgery) to working at a resident level and completing full eye examinations. Didactics will include weekly case presentation sessions to Dr. John Lind or Dr. Morton Smith, weekly attendance at grand rounds, and a mix of medical student-oriented and resident-oriented conferences. Also, there will be medical student-oriented workshops to learn the basics of the slit lamp and indirect ophthalmoscopy. On day one, students will receive a schedule of conferences that they are expected to attend during the month. By the end of the four-week rotation, the student is expected to be proficient in taking an ocular history and performing a complete eye exam including slit lamp biomicroscopy and indirect ophthalmoscopy. The final grade of the student is determined by the course director with input from the residents, fellows, and faculty members of the particular service(s) through which the student rotated.

**M50 Ophth 900 Research Elective - Ophthalmology**
Research opportunities may be available. If interested, please contact the Department of Ophthalmology.